

**Faculty of Agriculture
Goce Delcev University - Stip**



**1st INTERNATIONAL MEETING
AGRISCIENCE & PRACTICE (ASP 2018)**

BOOK OF ABSTRACTS

**10th - 11th May 2018
Stip, Republic of Macedonia**

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**1st INTERNATIONAL MEETING AGRISCIENCE & PRACTICE
ASP 2018**

Organized by

**FACULTY OF AGRICULTURE
GOCE DELCEV UNIVERSITY - STIP, REPUBLIC OF MACEDONIA
10-11 May 2018, Stip, Republic of Macedonia**

In the past ten years the educational, research and applicative activities of the Faculty of Agriculture – Stip, Goce Delcev University – Stip, contributed to the development of agriculture sector in the country and broader region.

The Faculty of Agriculture organizes the 1st International Meeting Agriscience & Practice (ASP 2018), giving an opportunity to the participants for presentation and discussion of original scientific and practical results in different fields of agriculture.

The 1st International Meeting Agriscience & Practice (ASP 2018) is organized with intention to bring together all agricultural stakeholders for sharing their knowledge, experience and obstacles. One of the main aims is to link research and field work in agricultural sector in the country and broader, giving it an international dimension.

The main goal of the Meeting is to connect and promote scientific achievements and practical knowledge presented in different thematic areas.

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MICROPROPAGATION OF ORNAMENTAL PLANTS: PRACTICAL APPLICATION AND OPPORTUNITIES IN REPUBLIC OF MACEDONIA

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Abstract

Planting material of ornamental plants is in great demand for commercial production as well as for domestic gardens and landscaping. Good quality planting material is a basic need of growers for improving productivity. The most recent data show that 700 million plants worldwide are produced *in vitro*. USA, India, Israel, Colombia, Ecuador and Brazil are leading countries in production of ornamental plants via *in vitro* propagation. Ornamental industry has applied immensely *in vitro* propagation approach for large-scale plant multiplication of elite superior varieties. As a result, hundreds of plant tissue culture laboratories have come up worldwide, especially in the developing countries due to cheap labour costs. However, micropropagation technology is more costly than conventional propagation methods, and unit cost per plant becomes unaffordable compelling to adopt strategies to cut down the production cost for lowering the cost per plant. There are many reports about the use of biotechnological tools and methods for improvement of ornamental plant production. This paper presents a review underlining the application of biotechnology on *in vitro* manipulation and propagation of ornamental plants in Republic of Macedonia, with special emphasis on petunia, pink dianthus, ornamental cabbage and ageratum.

Key words: ornamental plants, micropropagation, petunia, pink dianthus, ornamental cabbage, ageratum